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VICTORIAN ENTOMOLOGIST





Registered by Australia Post Publication No. VBG.0277 Price \$1 News Bulletin of The ENTOMOLOGICAL SOCIETY of VICTORIA THE ENTOMOLOGICAL SOCIETY OF VICTORIA



Membership

Any person with an intorest in entomology shall be eligible for Ordinary Membership. Nembers of the Society include professional, amateur and student entomologists, all of whom roceive the Society's News Bulletin, the Victorian Entomologist.

Objectives

The aims of the Society are :

- (a) to stimulate the scientific study and discussion of all aspects of entomology,
- (b) to gather, disseminate and record knowledge of all identifiable Australian insect spocios,
- (c) to compile a comprehensivo list of all Victorian insect spocies and
- (d) to bring together in a congenial but scientific atmosphere c:1 persons interested in ontomology.

Meetings

The Society's meetings aro held at Clunios Ross House, National Science Centre, 191 Royal Parade, Parkville, Victoria, at 8 pm on the third Friday of even months, with the possible exception of the December meeting which may be held earlier. Lectures by guest speakers or members are a feature of many meetings at which there is ample opportunity for informal discussion between members with similar interests. Forums are also conducted by members on their own particular interest so that others may participate in discussions.

Annual Subscriptions

Ordinary Membor \$10.00 Country Member \$ 8.00 (100 km + from GPO) Student Nember \$ 5.00 Associato Member \$ 2.00 (no magazine)

No additional fee is payable for overseas posting by surface mail of the News Bulletin. Associate Members, resident at the same address as, and being immediate relatives of an Ordinary Member, do not automatically receive a copy of the Society's publications but in all other respects rank as Ordinary Members.

Contributions to the Victorian Entomologist

The Society wolcomes contributions of articles, papers or notes portaining to any aspect of entomology for publication in the News Bulletin. Contributions are not restricted to members but are invited from all who have an interost. Natorial submitted should be responsible and original. Statemonts and opinions expressed are the responsibility of the respective authors and do not necessarily reflect the policies of the Society.

When contributions are typed it would be of great assistance if they are typed on A4 (International Quarto) paper, one and a half spaced with triple spacing between paragraphs and a margin of 3 cm.

Advertising

The charge for advertising is \$5.00 per half page.

Cover illustration by W.N.B. Quick. Cyria <u>imperialis</u> (Fabricius), Banksia Jewel Beetle (Buprestidae).

MINUTES OF THE GENERAL MEETING, 15 APRIL 1988

The President, M	ir K. Walker, openod the meeting at 8.15 pm.				
Apologies:	D. Crosby, J. Field, T. New				
Present:	M. Braby, G. & J. Burns, P. Carwardine, K. Clark, M. & P. Coupar, I. Faithfull, R. Field, D. & J. Holmes, M. Hunting, P. Kelly, F. & R. Nathews, S. Smith, R. Vagi, B. Vardy				
Minutes:	Minutes of the February meeting (<u>Vic.Ent.</u> 18:18) wore passed.				

K. Walker then introduced the speaker, Philip Hicks, formerly of the Garden Advisory Sorvice of the Department of Agriculturo but now in private proctice as a pest control consultant. Philip gavo a most illuminating talk concentrating on environmentally safe methods of pest control and showing sliues of many irequently encountered insect posts. The many questions asked both during and artor the talk indicated the interest generated. R. Field proposed a vote of thanks.

Treasurer's Report:	G. Burns reported a crodit balance of \$2528.74 (General Account), \$1812.01 (Le Souëf Memorial Award Fund) and \$270.00 (Junior Entemological Encourngement Fund).			
	There nre 71 financial members. Received (R. Field/P. Carwardine).			

- Exhibits: 1. M. Coupar: A case of moths from a variety of locnlities including specimens of the Snout Moth <u>Entomota</u> sp. (Lasiocampidae) from which he had raised larvae which were also exhibited, feeding on eucalypt.
 - K. Clark: Macleay's Swallowtnil butterilies from Lake Mountain.
 - K. Clark: A series of photographs of entumological excursions from the 1930s.
 - I. Faithfull: A wingloss femalo fly, <u>Boreoides subulatus</u>, from Toembullup, NE Vic.
 - M. Braby: A parasitised pupil case of the Imperial Blue butterily, <u>Julmonus evagoras</u>.
 - M. Braby: A specimen of the Eltham Coppor butterfly (<u>Paralucia pyrediscus lucida</u>) with wings damaged by a bird in the mannor described by D. Crosby (<u>Vic.Ent.</u> 18(2):21).

The meeting closed at 10.00 pm.

P. Kolly, Assistant Hon. Sec.

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MINUTES OF COUNCIL MEETING, 20 MAY 1988

The President opened the meeting at 8pm.

Apologies: M. Braby, M. Hunting

- Present: J. & G. Burns, P. Carwardine, O. Crosby, I. Faithfull, P. Kelly, T. New.
- Minutes of the March Council meeting (<u>Vic. Ent.</u> 18:19) were passed with one amendment (The trea£urer's report: amount of the Le Souëf Memorial Fund in dollars should read \$1962, not \$2162) (G. Burns/Crosby).

Correspondence. Octailed and received (Crosby/J. Burns).

Treasurer's Report. G. Burns reported credit balances of \$2627.93 (general account) and \$1812.01 (Memorial Fund).

There are at present 76 financial members. Agreed to transfer \$150 to Junior Encouragement Fund, now totalling \$420.

Editor's Report. 1. Faithfull raised several matters of concern.

- Costs of recent mailing of E.J. Brill publication notices the Treasurer to forward invoice.
- Address change for returned publications this to be changed to the Museum of Victoria, 71 Victoria Crescent, Abbotsford.
- 111) Variations in printing costs to be clarified in consultation with the Treasurer.
- iv) More articles needed.

General Business

- 1) Programme. Possible speakers for the August meeting are discussed.
- Nominations of Office-bearers for 1988-1989. Council's nominees are listed below.

President:	K. Walker	
Vice-Presidents:	R. Fleld, M. Hunting	
Secretary:	T. New (Assistant: P. Kelly)	
Treasurer:	G. Burns	
Editor:	I. Faithfull (an assistant editor to be sought)	
Excursions Secretary:	P. Carwardine	
Council members:	M. Braby, O. Cosby, J. Field, P. Kelly	

- 111) T. New tabled, for information, the newly-published greeting cards of the Australian Entomological Society.
- iv) Encouragement of Junior Entomologists. Considerable discussion was held over the best ways to encourage interest in insects.
 - a) There appears to be some uncertainty over the status and future of the Children's Museum.

- b) Provision of display cases and/or books for schools, possibly to be distributed as a result of ballot or competition. Advertisement in 'Contact' (STAV) 'Labling' or 'Labtalk' to be considered to initiate this.
- v) The revised Constitution, and associated documents, were tabled by D. Crosby, and discussed at length. Agreed (Crosby/Kelly) that these now be posted to all members as a basis for ratification at the June meeting.

K. Walker expressed the Society's thanks to D. Crosby for his work on the incorporation and new constitution.

The meeting closed at 9.25.

T. New, Honorary Secretary.

NOTICE OF SPECIAL MEETING OF THE SOCIETY

to be held ot Clunies Ross House, 191 Royal Parade Parkville, at 8 pm on Friday 17 June 1988.

AGENDA

To discuss and if thought fit, pass tho following Rosolutions:-That David Franklin Crosby of 74 Gipps St, East Resolution 1: Melbourne, be authorised to incorporate the Society under the Associations Incorporation Act 1981. Resolution 2:- That the Entomological Society of Victoria be incorporoted with the following purposes: (a) To stimulate the scientific study and discussion of ontomology in all its aspects; (b) to gather, preserve and disseminate knowledge of Australian species of insocts; (c) To compile and maintain a list of all known species of insects in Victoria; (d) To bring together in a social and scientific atmosphore oll persons interested in entomology. Resolution 31- That the Constitution ond Rules as sot out in the document so headed, be accepted as the rules of the Society for the purposes of incorporation.

> K.L. Walker, President.

Copies of the Constitution and Rules have been sent to all members olong with a lettor from the President explaining the incorporation proposal.

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BIRDS VERSUS BUTTERFLIES

Jean Brown, 4 McDonell Avenue, Cundletown, New South Wales, 2430

I was very intorested to read David Crosby's article regarding hirds attacking butterflies in the last issue of the News Bulletin.

Each year, from the end of Novomber to the latter part of March, we have Dollar birds (Eurystomus orientalis) in the Sheoaks in our garden. The parents leave their baby bird, or birds (sometimes there have been two), and go off looking for food for it. A couple of years ago, about the end of February, the young bird was doing its own search for food. One morning it was winging its way round the garden, and it took, on the wing, a Blue Triangle (Graphium sarpedon choredon). It then flew to its usual roosting spot in the She-oak and apparently ate the body of the butterfly, as I saw only one wing float to earth.

Another day, I saw a Black-faced Cuckoo-shrike (<u>Coracina</u> <u>novaehollandiae</u>) take a Cabbage White (<u>Pieris rapae</u>) and once again, only a wing floated to earth from its roosting place.

In the bower of a Satin Bowerbird (<u>Ptilonorhynchus vio-laceus</u>) at Saltwater, near Taree, I saw the wing of a Blue Triangle among the other blue decorations he had collected. Whether it had taken the butterfly, or just found the wing, I do not know.

The birds here are very keen on the larva of butterflies, but only on theso two occasions have I actually seen them take a butterfly. I have seen Wandorors (<u>Danaus plexippus</u>) with wing damage consistent with a bite from a birds beak, but whether this is so or not, again I am not sure.

We also have Brown Honeyeaters (<u>Lichmera indistincta</u>) which nest in our garden, and ono day I saw one with a small, pale moth in its beak fly back to its nest in the tree. This morning (18 April) I saw a Willy Wagtail (<u>Rhipidura leucophrys</u>) trying to catch a Crow (<u>Euplooa</u>)!

I have also seen a Sacred Kingfishor (<u>Halcyon sancta</u>) take a dragonfly, on the wing. I'll keep watching!

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COLLECTING IN THE NORTH EAST MOUNTAIN AREA, FEBRUARY 1988

David Holmes, 5 Overbay Avenue, Dromana, Victoria, 3936

My wife and I spent a week in the Bright area to observe what was flying and to colloct a few small meths.

Friday February 12. We were in the Falls Creek area. On the moadows near the Mt Cope sign (that is on the road to Omeo) we observed many <u>Orioxenica orichera</u> flying. These woro predominantly females as the males usually fly in January, and what males were about seemed mostly worn. There were quite a few day flying moths around this area and we also collected one <u>Neolucia hobartensis</u>. At Howmans Gap <u>Oriexenica korshawi</u>, <u>0. lathoniella horceus</u>, <u>0. correae</u> and <u>Heteronympha solandri</u> were present in reasonable numbers. There was only one <u>Anisynta</u> <u>monticolae</u>, compared with many four years ago. This was possibly due to the readworks being done with the verges of the read being bare and lacking in the flowers that usually attract the <u>monticolae</u>. At this spot I was hoping to see the small hepialid moth <u>Fraus</u> <u>musca</u>, which usually flios about 4.30 pm, but at 3.30 a severe rain storm ended our observations for the day.

On Monday 15 February we travelled to Mount Hotham. We commencedour collecting at Boggy Creek where <u>Heteronympha penelope sterope</u> were common. There were a few ragged <u>Heteronympha cordace</u> around - they usually fly in January. Also collected here were a few <u>O. lathoniella horceus</u> which had just emerged. There were two <u>Oreisplanus munionga</u>. This skipper could be under threat here as cattle could eat the larva in the sedges. Also seen was one <u>Anisynta dominula drachmophera</u>, as well as <u>Geitoneura</u> <u>klugii</u>. <u>O. corroae</u> were quite common from Brandy Creek, back towards Mt Hotham, there being equal numbers of male and female.

Tuesday Fobruary 16 was spent in the Bright area where we collected along the Ovens River. One <u>Paralucia aurifera</u> and one <u>Heteronympha paradelpha</u> female were found. Also sighted was <u>Jalmonus evagoras</u> and <u>Heteronympha meropo</u>.

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Wednesday 17 February. Mt Buffalo. We collected small day flying moths - not many species. The woll known Bogong Moth, <u>Agrotis infusa</u>, was common. Around the bogs we saw many <u>Anisynta dominula drachmophora</u>, <u>Oriexenica correae</u>, <u>Vanessa</u> <u>kershawi</u>, <u>V. itea</u>, <u>Precis villida calybe</u>, <u>Neolucia agricola</u>. Collected two skippers that may be <u>Trapezites eliona</u>.

Thursday February 18 we packed up the caravan and returned home to Dromana, happy to have had another collecting trip in those beautiful mountain ranges in the north east of our State.

Reference

David R. Nolmes, 1984. Collecting in the North East Mountains. <u>Victorian</u> <u>Entomologist</u> 14(4):39-40

THE COLOUR QUESTION.

A PALE, BRED SPECIMEN OF GRAPHIUM SARPEDON CHOREDON

Jean Brown, 4 McDonoll Avenue, Cundletown, New South Wales, 2430

Reference is made to Pat and Nike Coupar's account of rearing <u>Graphium macleayanum macleayanum</u> and the puzzle of colour-lack in the specimens reared by them (<u>Victorian Entomologist</u>, February 1988). I have had the same experience in rearing <u>Graphium sarpedon</u> <u>choredon</u> from one of two eggs laid on a small (40 cm) Camphor Laurol tree growing in a pot in my bushhouse.

When the eggs hatchod I placed the pot in my "rearing cage", still in the bushhouse, and watchod them grow. The eggs were laid on 5 December 1981, and both hatchod on 11 Docomber, the larvae blackish with little white "tail".

- 13 Decembor: colour change to brownish greon;
- 15 December: both groen, one shed skin;

17 December: white spots on body and four black "horns";

18 Docembor: other larva shed skin and ato it;

20 Docembor: larger larva about 25 mm long;

21 December: larger larva shed skin;

23 December: larger larva about 37 mm;

25 Docomber: larger larva about 43 mm;

- 26 Docembor: smaller larva died;
- 28 December: larva pupated -lovely green- on plant's trunk;
- 8 January: eyes showed faintly on pupa;

12 January: wing outline, faint blue-green and signs of black;13 January: femalo emergod, perfect but "blue" was a groyish,

blue-green on her wings. Because of the unusual colour I kept her till the next day, in case it changed, but there was no change. These records are from these made at the time in my notebook. Instead of releasing her, I kept her as a specimen.

So there it is, growing in the same place, natural light and shade, on the same tree, from egg to image, and lacking the usual colour of wings. Yet, I have grown from eggs, on my kitchen window sill, perfect specimons of the Orchard butterfly, Wanderer, Lemon Migrant, even a beautiful Emperor - though he was by the dining room windows, and I didn't know he had omerged until until I found him on the kitchen floor!

Is it only blues and greens that need that something "special" from nature? My broeding cago is covered in white mosquito netting, so is well ventilated, and I have raised Lesser Wanderers and Wnaderers, Admirals and various moths and all wero perfect, raised in same conditions.

MISSING ISSUES ?

Have you missed out on receiving any recent issues of the <u>Vic. Ent.</u>? Mistakes can sometimes be made in the mailout and the financial status of mambers. Please do not hesitate to ask for missing issues to ensure your collection is complete. Those from 14(6) onwards can be obtained from the Hon. Editor. Those prior to December 1984 may be harder to obtain and contact should be made with the Hon. Secretary.

NOMENCLATURE OF AUSTRALIAN PAPILIONIDAE

Robert H. Fisher,

South Australian Museum, North Terrace, Adelaide, S.A. 5000

The phylogenetic classification of the Papilionidae proposed by Hancock (1983) has resulted in some major changes to the familiar nomenclature of this family. The genus <u>Papilio</u> Linnaeus, for instance, with more than 200 species, is divided new into six genera, with only 14 of the original species reamining in <u>Papilio</u>, and these restricted to North and Central America, Europe and Asia. The genus <u>Ornithoptera</u> Beisduval becomes a subgenus of <u>Treides</u> Hubner, while the North Queensland subspecies <u>Ornithoptera priamus euphorion</u> (Gray) reverts to a full species as <u>Treides euphorion</u> (Gray). Further research (Hancock, 1988) recognises <u>Pachliopta</u> Reakirt as a subgenus of <u>Atrophaneura</u> Reakirt. The South Australian Museum has adopted this classification for the species and drawer labels in its extensive collection of Papilionidae.

For the convenience of lepidopterists the following list of Australian Papilionidae is presented, showing the species names as they appear in Common and Waterhouse (1981), and the corresponding names resulting from Hancock's research.

References

Common, I.F.B. and Waterhouse, D.F., 1981. <u>Butterflies of Aust-</u> <u>ralia.</u> Revised edition. Angus and Robertson, Sydney. 682 pp.

Hancock, D.L., 1983. Classification of the Papilionidae (Lepidoptera): a phylogenetic approach. Smithersia 2, 1-48

Hancock, D.L., 1988. A revised classification of the genus <u>Atrophaneura</u> Reakirt (Lopidoptora: Papilionidae). <u>Aust. ont. Mag.</u> 15(1), 7-16.

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AUSTRALIAN PAPILIONIDAE

Previous Nomenclature	New Nomenclature
Protographium <u>leosthenes</u> <u>leos-</u> <u>thenes</u> (Doubleday)	Unchanged
Graphium macleayanum macleay- anum (Leach)	n
Graphium macleayanum wilsoni Couchman	**
Graphium macleayanum moggana Couchman	Π
Graphium macleayanum insulum Waterhouse	"
Graphium sarpedon choredon (C & R Felder)	**
Graphium eurypylus lycaon (C & R Felder)	11
Graphium eurypylus nictinus (Waterhouse and Lyoll)	n
Graphium macfarlanei macfarlanei (Butler)	"
(Rothschild)	
Graphium aristeus parmatum (Gray) Papilio anactus W S Macleay	Eleppone anactus (W S Macloay)
Papilio aegeus aegeus Donovan Papilio aegous ormenus Guórin-	Princeps aegeus aegeus (Donovan) Princeps aegeus ormonus Guérin-
Méneville Papilio fuscus capaneus Westwood	Méneville <u>Princeps fuscus capaneus</u> (West-
Papilio fuscus indicatus Butler	wood) Princeps fuscus indicatus
Papilio canopus canopus Westwood	Butler) <u>Princeps canopus canopus</u> (West- wood)
Papilio ambrax egipius Miskin	Princeps ambrax egipius (Miskin) Princeps ambrax ambrax (Bois-
Papilio ambrax ambrax Boisduval	duval) Princeps demoleus sthenelus
Papilio demoleus sthenelus W S Nacleay	W S Macleay
Papilio ulysses joesa Butler Cressida cressida cressida Fabricius	<u>Princeps</u> <u>ulysses</u> joesa (Butlor) Unchanged
<u>Cressida cressida cassandra</u> Waterhouse and Lyell	n
Pachliopta polydorus queensland- icus (Rothschild)	<u>Atrophaneura polydorus queons-</u> <u>landicus</u> (Rothschild)
Ornithoptera priamus pronomus (Gray)	Troidos priamus pronomus (Gray)
Ornithoptera priamus poseidon Doubleday	<u>Troides priamus poseidon</u> (Doubleday)
Ornithoptera priamus macalpinei Moulds	Troides priamus macalpinei (Noulds)
Ornithoptera priamus euphorion (Gray)	Troides euphorion (Gray)
Ornithoptera richmondia (Gray)	<u>Troides</u> <u>richmondia</u> (Gray)

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OVIPOSITING BEHAVIOUR IN THE SKIPPER HESPERILLA MALINDEVA

LOWER (LEPIDOPTERA : HESPERIIDAE : TRAPEZITINAE)

K.L. Dunn, 5 Rogoncy Avonue, Pialba, Quoonsland, 4655 R.C. Manskie, 139 Queen Streot, Maryborough, Queensland, 4650

During March 1988 the authors observed the evipositing behaviour of <u>Hosperilla malindeva</u> at Marcom, south-east Queonsland.

A female was obsorved to fly directly to a small <u>Gahnia</u> plant (probably <u>G. aspera</u>). She settled almost immediately, near the top of a contral, vertical blade. Upon settling, her wings were closed above the body and head directed upward. She then began to crawl in reverse down the blade. During this descent, her abdomen slowly oscillated laterally as part of her gait. After descending by this movement to near the base of the centre of the food plant, the female laid a single ogg. The distance crawled by the skipper before evipositing was about 20 cm. She then crawled forward up the same blade toward the top of the <u>Gahnia</u>. Just below the spot where she had originally settled, the female took to flight in an upward fluttering motion. She was then netted and her identification confirmed.

Atkins (1973) described a very similar "backward crawl" prior to oviposition in <u>Proeidosa polysema</u> (Lowor). According to Atkins (pers. comm.) this behaviour could possibly be an adaptation for rapid flight amongst particular grasses such as <u>Triodia</u>, and <u>Gahnia</u>. Little information is available in tho literature concerning ovipositing behaviour in the Trapezitinae. Atkins and Dunn (1986) did not record a similar "backward crawl" in <u>Hesperilla flavoscens flavescens</u> Waterhouse. Observations on other genera of similar morphology, and in particular other membors of the <u>H. malindeva</u> group (see Atkins, 1978) could reveal akin behaviour.

References

Atkins, A. (1973) A now genus <u>Proeidosa</u> for an Australian skippor, <u>Pasma polysema</u> (Lower) (Lepidoptora :

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llesperiidae, Trapezitinae). J.Aust.ent.Soc. 12(4):253-260

- Atkins, A. (1978) The <u>Hesperilla malindeva</u> group from Northern Australia, including a now specios (Lopidoptera : Hesporiidae). <u>J.Aust.ent.Sec.</u> 17(3):205-215
- Atkins, A. and K.L. Dunn. (1986) A doscription of the egg of <u>Hesporilla flavescons flavescons</u> Waterhouse. <u>Victorian</u> <u>Entomologist</u> 16(3):33

Acknowledgement

We thank Andrew Atkins for his comments.

PROTECTED BUTTERFLIES

Ogyris etanes C. and R. Felder Ogyris idme halmaturia Tepper Hesperilla flavescens flavoscens Waterheuse

In December 1973 the Entomological Society of Victoria placed the two <u>Ogyris</u> listed in a 'Limited Voluntary Protection' category. In February 1986 the <u>Hesperilla</u> became the third butterfly to be listed. The cooporation of membors is requested in the observation of the recommended restrictions :-

- 1. That no more than two specimens be netted by any one collector within any one sensen.
- 2. That no inrvao or pupao be collected at any time.

'PRELIMINARY DISTRIBUTION MAPS OF BUTTERFLIES IN VICTORIA' Published by the Entemological Society of Vic.

Maps of the recorded distributions of the 108 species of butterflies knewn from this state, plus associated information about the ENTREC Scheme. Cost \$10.00 plus \$2.00 pestage and hundling, from: David Crosby, ENTRECS Co-erdinater 74 Gipps Street East Nelbourne, 3002 Tel. 417 6345

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ON THE GRAPEVINE

In mid May Dr <u>Tim New</u>, Reader in Zeelegy at LaTrebe University and Secretary of the ESV, was awarded the Nackerras Nedal of the Australian Entemological Seciety. This heneur is awarded biennially for "excellence in entemology" to a member of the Seciety under the age of 50, selected for the award on the basis of an exceptional record of achievement. The Mackerras Nedal was instituted in 1984 to heneur the famous Australian modical entemologist, Ian Nackerras, and Tim is the third recipient of this national distinction. Also, at the AGM of the Aust. Ent. Sec. in Brisbane he was elected President of that Society. Tim is off to Malaysia for a couple of menths.

<u>Kelvyn Dunn</u> has taken up a teaching position at Naryborough high School (Qld) where he will challenge his students with year 11 maths, biology and science. He will be living at Pialba, about half an hours drive from Naryborough. In 1989 he will be taking year 12. Kelvyn reports pleasant weather, with about 30 species of butterflies still flying in late Nay. Not much chance to get a sun tan yet - it rains!

<u>Ray and Nela Manskie</u> send their regards to members. They visited south east Queensland with <u>Red Eastwood</u> at Easter and saw <u>Alex</u> <u>Burns</u> at Burleigh Heads. Alex was Curater of Entemology at the National Museum, new the Museum of Victoria, and is the same age as <u>Jee Manski</u>, the well known Maryberough lepidepterist.

<u>Mike Braby</u> hopes to continue his formal studies, maybe in 1989. At present he is working up for publication material on the flight period of the Browns.

The Department of Agriculture and Rural Affairs is seeking an Insect Taxonemist to fill the vacancy created by retirement at the Plant Research Institute, Burnley. So far the position has been advertised only internally in the Victorian Public Service.

Grapevine is centinued on p.55.

RECENT PUBLICATIONS OF INTEREST

Apple moths causing havoc in vineyard crops. <u>Weekly Times</u> 17 February, p.38. <u>Epiphyas postvittana</u> (Tortricidae) the culprit, particularly in southern Victoria where lesses up to 25% have occurred with some varieties. <u>Bacillus thuringensis</u> spray and other recommended control methods. DARA evaluation of pheromone traps.

Biological control of pasture pests. Weekly Times 16 March, p. 16. <u>Adoryphorus couloni</u> (Scarabaeidae) grubs feed underground and cause extensive damage to pasture. Biological control using nematodes has now been tested.

New chemical to control lice and blowfiles. <u>Weekly Times</u> 10 Feb., p.35. Hoechst Agrivet product, Sectar, for spray application to sheep. A mixture of cypermethrln and diazanon.

Gayle Austen, Waiting in the wings to weed out pest. The Age 29 Feb., p.7; Injunction on Salvation Jane to stay. <u>Weekly</u> <u>Times</u> 23 March, p.17. An injunction preventing CSIRO releasing biological control insects for the weed Pattersons Curse is to remain in force after n complex legal ruling in the South Australian Supreme Court. Beekeepers obtnined the restraining order in 1980 to protect off-senson bee food. Herbiclde weed control is estimated to cost \$15 million. CSIRO had bred up European leaf mining moths and two colonies of weevils amongst eight identified predators for release if the injunction had been lifted.

Graome O'Neil, Cove work ruined research - ecologist. The Age 18 May, p.3. Construction work on the infamous Sanctuary Cove development on the Qld. Gold Coast destroyed a long term experiment designed to minimise the risk of mesquite borne disonses. Mesquitees are now in their greatest concentrations in the area damaged by the developers. Also mentions alarm at proposed end to National mesquite borne disease control prog. which could cost the tourist industry up to \$160 million if a a severe outbreak of Ross River virus should occur.

Scientists battle to bug the melaleuca. The Age, 26 May, p.2. Tenms of US scientists will soon start Australian investigations for <u>Melaleuca</u> enting insects to control the plant in Florida where it was introducod in 1906 and used to drain wetlands.

A singular fly. <u>New Scientist</u> 14 January, p.30. The rarest fly on earth(!), <u>Exsul singularis</u>, a peculiar 5 cm long creature with huge black wings, has been found for the first time sinco 1941 by a five year old boy in New Zealand. Illustrated.

Ants know when its dinnertime. <u>New Scientist</u> 14 Jan. p.36. The central American <u>Paraponera clavata</u> has an accurate time sense and can learn when and where its food is likely to be found, a great advantage for a nectar feeder in tropical rainforest.

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Rocent Publications of Interost (continued)

Crooning katydids fool hungry bats. <u>New Scientist</u> 14 Jan., p. 38. Experimonts in Panama show that male katydids used as lures attract bats into mist nets with their songs. Unlike katydids of the clearings, forost katydids have calls that make thom difficult to locate: a defonsive adaptation against the foliago gleaning bats of the rainforest. They also shake the plants on which they rest so as to send seismic rather than sound signals. (Science 238:64).

Caterpillars' guide to eating out. <u>New Scientist</u> 21 Jan., p.39. Larvae of <u>Malacosoma americanum</u> (Lasiocampidao) survivo and grow bettor on younger loavos of their foodplant which they mark with pheromone to help others of their species find the bost food (<u>Ecological Entomology</u> 12:253).

R.A. Samson & J.P. Latgé, <u>Atlas of the Entomopathogenic Fungi</u>. Springer Verlag, 1988. Approx 220 pp. A\$120.50. Taxonomy, illustrations, ecology, biology, biological control, etc.

W.J. Mattson, J. Levieux & C. Bernard-Dagan (Eds.), <u>Mechanisms</u> of <u>Woody Plant Defenses Against Insects: Search for Pattern</u>. Springer Verlag, Jan. 1988 (tentative). Approx 435 pp. A\$96. Basic physiological and ecological nspects, examples of free feeders and attached and embedded feedors.

David J. Horn, Ecological Approach to Pest Management. xi1 + 276 pp. Elsevier, 1988. A\$90. Professional level overview.

N. Bhushan Namdava and E. David Morgan (Eds) <u>CRC Handbook.of</u> <u>Natural Pesticides : Pheromones</u>. Part A. Insoct olfaction and molecular structuro. Pheromonos of Lepidoptera and Coleoptern. C.224 pp. Duo Narch 1988. \$246.50. Part B. Pheromonos of Diptera, Hymonoptera, Isoptera and other insects. C.368 pp. Duo Narch 1988. \$245.75. CRC Press Inc.

A. Soos and L.Papp (Eds.), <u>Catalogue of Palaearctic Diptera.</u> <u>Vol. 3. Ceratopogonidae - Mycetophilidae</u>. Fob. 1988 (Approx). 220 pp. A\$169.25. <u>Vol. 8. Syrphidae - Conopidae</u>. April 1988 (Approx.).450 pp. A\$297.00.

Ross H. Arnett and Mary E. Arnett (Eds.), <u>The Naturalists Dir-</u> <u>ectory and Almanac (International) 45th Edition 1988</u>. Published winter 1987. A\$37.75. E.J. Brill Flora & Fauna Publications. US based list of naturalists of the world with addrossos, interest statements, geographic and subject indices.

Pierre Jolivet, <u>Insects and Plants. Parallel Evolution and</u> <u>Adaptations. xii, 197 pp. E.J. Brill Flora and Fauna Handbooks</u> No. 2. 1986. A\$31.00

S.C. Willomstoin, <u>An Evolutionary Basis for Pollination Ecology</u>. c.426 pp., E.J. Brill, Leiden Botanical Series 10, Summer 1987. A\$90.25. Fooding habits of flower visiting insocts corrolated with their phylogeny and fossil record and that of plants.

J.C. Trage (Ed.), <u>Advances in Myrmecology</u>. c 520 pp., E.J.Brill. 1987. A382.75. 54 authors covoring all aspects of ants.

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R.H. Arnott, G.A. Samuelson, et al., <u>The Insect and Spider Collections of the World</u>. 220 pp., E.J. Brill. 1986 **A\$**31.00. Standard description of collections, their sizes, names of curators, notes on special collections, regions covored, &c. Private and public. Plus assigned 4 letter codens.

R.O. Drummond, J.E. Goorge & S.E. Kunz (Eds.), <u>Control of Arthropod Pests of Livestock : A Review of Technology</u>. c272 pp., CRC Pross Inc. Due 1988. A\$203.75. In dopth review of literature documenting the development of control tochnology. Nasty stuff.

A.K. Minks and P. Harrewijn (Eds.), <u>Aphids, Their Biology, Natural Enemies and Control. Volume B.</u> 382 pp. Elsevier. 1988. A\$259.25. Part 2 of 3 volume work. Covers techniques, natural onemies.

A.P. Economopoulos, <u>Fruit Flies</u>. Proceedings 2nd International Symposium 16-21 Sept. 1986, Crcte. 590 pp. Elsevier, 1987. 145.75

G.A. Zakladnoi & V.F. Ratanova, <u>Stored-grain Pests and Their</u> <u>Control</u>. Transl. from Russian by I. Nair. 279 pp. A.A. Balkema Publishers, 1987. \$60.75.

G.A. Webb, Larval Host Plants of Cerambycidae (Coleoptera) held in Some Australian Insect Collections. <u>Technical Papor No. 38</u> <u>Forestry Commission of New South Wales</u>, 1987.19pp. Data labels recorded for longicorns in the Australian Museum, Aust. Nat. Insect Collection and FCNSW collection. Host plant list updates the botanical names on data labels.

C.N. Smithers, Four additional antiion records from Barrow Island Western Australia (Neuroptera:Myrmeleont.).P.2; New distribution records for Australian Chrysopidae (Neuroptora). p.35-8, <u>Aust.</u> ent. Mag. 15(1), March 1988

D.G. James, A new host plant for <u>Junonia villida calybe</u> (Godart) (Lepid:Nymphal.). P.6; Migration and behaviour of non-reproductive <u>Danaus plexippus</u> (L.) ... in the Blue Mountains, NSW. Pp.25-30; Induction of pupal diapause in <u>Papilio aegeus aegeus</u> Donovan and <u>Graphium sarpedon choredon</u> (C.&R. Felder) (Lepidop:Papilion). PP.39-44, <u>Aust. ent. Mag.</u> 15(1)

D.C.F. Rontz, <u>Nanophyllum pygmaeum</u> Redtenbacher (Phasmatodea: Phylliidae), a leaf insect recently recognised in Australia. Aust. ont. Mag. 15(1):3-5. From Iron Range. Notes on biology.

R.I. Storey & T.A. Weir, New localities and biological notes for the genus <u>Onthophagus</u> Latreille (Coleopt:Scarabaeidae) in Australia. <u>Aust. ent. Mag</u>. 15(1):17-24. Nostly Qld & NT records for 25 species of dung beetles.

M. Schotz & D.P.A. Sands, Diel patterns of feeding and oviposition by <u>Cyrtobagous salviniae</u> Calder and Sands (Coleop:Curcul). <u>Aust. ont. Mag.</u> 15(1):31-2.Feeding and oviposition found to be mainly nocturnal activities for the introduced salvinia weovil.

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Recent Publications of Interest (continued)

M.F. Braby, New food plants for <u>Jalmenus evagoras</u> evagoras (Don.) (Lepidoptera:LLycaenidae). <u>Aust. ent. Mag.</u> 15(1):33-4. <u>Acacia</u> pychantha and A. <u>imploxa</u> at Maclood, Vic.

Division of Entomology, CSIRO, <u>Biennial Report 1983-5</u>. 1986. 129 pp., \$5.00, CSIRO Publications, Albort Street, East Melbourne. Packed with fascinating details of the Division's work, many interesting pictures, 11 pp list of publications, index. Not citeble but worthy of wider distribution.

A.D. Austin and N.W. Heather (Eds.), <u>Australian Arachnology</u>. Australian Entomological Society, Brisbane, 1988, Miscellaneous Publication No. 5. 137 pp. \$20.00 for AES Nembers, \$30.00 non-members. Available from Businesss Ngr, AES; C/O Dept. Primary Industries, Meirs Road, Indooroopilly, 4068. 11 papers from the Society's 1986 symposium covering systematics, ecology and behaviour of major arachnid groups in Australia, plus specific spider research projects.

D.B. McCorquodalo and C.E. Thomson, A nest shared by the solitary wasps <u>Corceris</u> <u>antipodes</u> Smith and <u>C. <u>australis</u> Saussure (Sphec-idae). <u>J. Aust.ont.Soc.</u>27(1):9-10. At Brisbane Water NP, NSW.</u>

N.W.J. Crosland, R.H.Crozier & H.T.Imai, Evidence for several si sibling biological species centred on <u>Myrmecia pilosula</u>(Formicid.) <u>J.Aust.ent.Soc.</u>27:13-14. Analysis of chromosomo nos. of the common black Australian jumper ant.

R.B.Coles, F.Verberne & H.N.Brockes, The immature and adult stages of <u>Callococcus leptospermi</u> (Maskell) (Coccoides) with observations on life history. <u>J.Aust.ent.Soc.</u>27:15-25. Scale insect that forms woody galls on stems of tea-tree in SE Australia.

E.B. Britton, Synopsis of the genera of Australian Heteronycini (Colooptera:Scarabaeidae:Melolenthinae). J.Aust.ent.Soc.27:27-36. Part of continuing review of subfamily commenced in 1957. 10 gen. incl. 4 new (<u>Acheilo, Paraheteronyx</u>, <u>Proborhinus</u>, <u>Wobbella</u>) with keys to <u>Acheilo</u> and <u>Webbella</u> spp. and to genera.

Lionel IIII, The identity and biology of <u>Baclozygum depressum</u> Bergroth (Hemiptera:Thaumastocoridae).<u>J.Aust.ent.Soc.</u>27:37-42. G. Viggiani & M. Carvor, <u>Cales orchamoplati</u> sp.n. (Hymenoptera:

Aphelinidae) from Australia. J.Aust.ent.Soc.27:43-5. Chalcidoid wasp parasite of white flies.

G.B. Smith, Now species of <u>Trinemura</u> Silvestri (Thysanura).<u>J.Aust</u>. ent.Soc.27:47-52. 1 from caves, NSW and 1 loaf litter Norfolk Is.

J.F. Lawrence, Notes on the classification of some Australian Cucujoidea (Coleoptera). J.Aust.ent.Soc.27:53-4. Nitidulidae, Phlooostichidae, Erotylidae(transfors from Pythidae, Cryptophagidae, Sylvanidae, Languriidae), synonyms, new combinations. Rocent Publications of Interost (continued)

G.A. Webb, The identity of <u>Earinus purpureus</u> Lea (Colooptora: Corambycidae).<u>J.Aust.ent.Sec.</u>27(1):60. <u>=Orodores uniformis</u> Blackb. a W.A. sp., figured.

N.J. Fletcher and N.N. Stevens, Koy to the subfemilios and tribos of Australian Cicadellidae (Hemiptora:Homoptera).<u>J.Aust.ent.Soc.</u> 27(1):61-7.

J. Kojima and K. Kojima, Three new species of <u>Polistos</u> Latroille (HymnnoptoraiVespidae) from Papua New Guinea with notes conthe taxonomic status of the subgenus <u>Stenopolistos</u> Van dor Vecht. J.Aust.ont.Soc.27(1):69-80.

R.J.Bartell, T.E.Bellas and C.P. Whittlo, Evidence for biological activity of two further alcohols in the sex pheromone of female Cydia pomonella (L.)(LepidopteraiTortricidae).J.Aust.ent.Soc. 27: 11-12. Male Codling moth rosponsos to the chemicals.

ON THE GRAPEVINE (CONTINUED)

I had three weeks travelling in western and northern NSW in April and May. Insect highlights included a skipper at Brokon Hill that looks suspiciously like an <u>Ocybadistes</u> and my first experience with <u>Jalmenus</u> <u>icilius</u>. Now I have to move house. This will probably mean smaller <u>Victorian Entomologists</u> until I get settled again, unless readers come to the party with more material.

DEADLINE FOR THE NEXT ISSUE IS FRIDAY 29 JULY 1988

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DIARY OF COMING EVENTS

Friday	17	Jun	e at	8	pm	-	Special Meeting to consider Incorporation of the Society. Annual General Meeting. Elections. Presidential Address : Ken Walker - "Spiders and Insects"
		19	July Augu Sept	st		-	Council Meeting Genoral Meeting Council Meeting

Scientific names contained in this document are not intended for permanent scientific record, and are not published for the purposes of nomenclature within the meaning of the International Code of Zoological Nomenclature, Article 8(b).Contributions are not referred, and authors alone are responsible for the views expressed.



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